

What is claimed is:

1. A universal serial bus (USB) interface device having a switching function, comprising:

5 a dual interface means connected to an external device through a communication line, for multi-switching data according to a microcontroller unit (MCU) selection signal and a digital signal processor (DSP) selection signal;

10 an image processing means for obtaining external image data, digitalizing the image data and outputting the digitalized data to the dual interface means;

15 a signal processing means for activating the MCU selection signal or the DSP selection signal, sending the data to the external device through the dual interface means, receiving the data from the external device through the dual interface means and processing the data; and

a memory means for storing or outputting the data according to control of the image processing means or the signal processing means.

20 2. The device as recited in claim 1, wherein the communication line is a USB line.

25 3. The device as recited in claim 1, wherein the communication line is a RS232C data line.

4. The device as recited in claim 1, wherein the dual

interface means includes:

a carkit connector connected to the external device through the communication line, for providing interface;

a first dual single pole single through (SPST) connected to a first USB line of the communication line through the carkit connector, for providing a data path to the signal processing means when the MCU selection signal is activated and providing a data path to the image processing means when the DSP selection signal is activated.

a second dual SPST connected to a second USB line of the communication line through the carkit connector, for providing a data path to the signal processing means when the MCU selection signal is activated and providing a data path to the image processing means when the DSP selection signal is activated.

5. The device as recited in claim 1, wherein the image processing means includes:

a camera module for obtaining external image data and outputting the image data; and

an image processor for receiving the image data, processing the image data, receiving the audio data, processing the audio data and outputting the processed data to the dual interface means.

6. The device as recited in claim 1, wherein the signal processing means includes:

a USB transceiver for receiving the data from the dual interface means, transforming the received data into a logic level signal, transferring the data to an MCU and transferring the data from the MCU to the dual interface means; and

5 the MCU for receiving the data from the USB transceiver, transforming the data into the adequate format to a mobile terminal, receiving the data from the mobile terminal, transforming the data into the adequate format to the USB transceiver and activating the DSP selection signal and MCU  
10 selection signal.

7. The device as recited in claim 1, wherein the external device is a personal computer.

15 8. The device as recited in claim 1, wherein the external device is a printer.

9. The device as recited in claim 1, wherein the external device is an external USB memory.

20 10. The device as recited in claim 1, wherein the external device is a keyboard.

11. The device as recited in claim 1, wherein the  
25 external device is an audio component.